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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,771	06/20/2003	Jessica E. LeMay	460.2174USU	7298

7590 06/28/2005

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EXAMINER

HILL, LAURA C

ART UNIT PAPER NUMBER

3761

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,771

Applicant(s)

LEMAY ET AL.

Examiner

Laura C. Hill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-73 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the 'weakened base region' of claim 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Tapered Tampon Applicator With Petals and Taper Ratio.

Claim Objections

2. Claim 1 is objected to because of the following informalities: the 'tapered insertion end' on line 2 is referred to as 'tapered insertion tip 24' on page 5, line 23 of the specification. Appropriate correction is required.

3. Claim 26 is objected to because of the following informalities: the maximum outside barrel diameter of greater than or equal to 0.598 inches is referred to as the maximum outside barrel diameter being less than 0.598 inches. A diameter of greater than 0.598 inches cannot have a maximum diameter less 0.598 inches. Appropriate correction is required.

Claim Interpretation

4. The term 'about' when referring to measurements is given its broadest reasonable interpretation of the standard Merriam-Webster definition of 'reasonably close to' and is interpreted as approximate values.

5. The 'plurality of petals each have a thickness' of claim 1 is interpreted to mean each individual 'petal' has its own thickness or depth.

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6. The 'length of a projection of the insertion end taper along a longitudinal axis of the barrel' BD of claim 1 is interpreted to be any length that extends partially and/or entirely along the longitudinal axis of the barrel.

7. The 'base region' 48 of claim 21 is interpreted to be any area at the base of petals measured from the tip of the insertion end to any point (not just where tapering ends) on barrel 22.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-10, 13-22, 24-25, 27-28, 30-61, 63-64 and 66-73 are rejected under 35 U.S.C. 103(a) as being obvious over Suga (US 2001/0056253) in view of Berger et al. (US 3,895,634). Regarding claims 1, 5-6 and 19 Suga discloses tampon applicator comprising a barrel 2 having a tapered insertion end having two petals and a taper ratio of 6-7.5

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[barrel 2 length = total length L along barrel = (70-140 mm);

therefore taper ratio= barrel length L/barrel radius D=

= 70/8 to 140/20=8.75-7 (figure 2, paragraph 0011, lines 9-19).

Suga does not expressly disclose a petal thickness. Berger et al. discloses a tampon inserter 10 with a front barrel member 14, which tapers at its rear end and having a plurality of triangular segments/petals 30 (col. 5, ll. 9-11, figure 1). Berger et al. further discloses the cross-sectional thickness of the petals will be at least 0.005 inch and most preferably at least 0.0075 inch that is less than the mean cross-sectional thickness of the cylindrical portion of front barrel member 14 (col. 7, ll. 19-23). Berger et al. does not expressly disclose a taper ratio. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify Suga to have the petal thickness of Berger et al. since both references disclose tampon applicators with a tapered barrel and a plurality of petals.

Regarding claims 2-4 Suga/Berger et al. disclose the tampon applicator with a taper ratio as discussed in rejected claim 1. Although Suga does not expressly disclose a taper ratio in the ranges claimed, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tampon applicators of Suga/Berger et al., since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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Regarding claim 7 Suga/Berger et al. disclose the tampon applicator with a taper ratio and petal thickness as discussed in rejected claim 1. Berger et al. discloses the petal thickness that is capable of being substantially uniform (figure 4). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

Regarding claims 8-10 Suga/Berger et al. disclose the tampon applicator with a taper ratio and substantially uniform petal thickness as discussed in rejected claim 1. Although neither reference discloses the petal thickness varies no more than the range claimed, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tampon applicators of Suga/Berger et al. to include these ranges since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

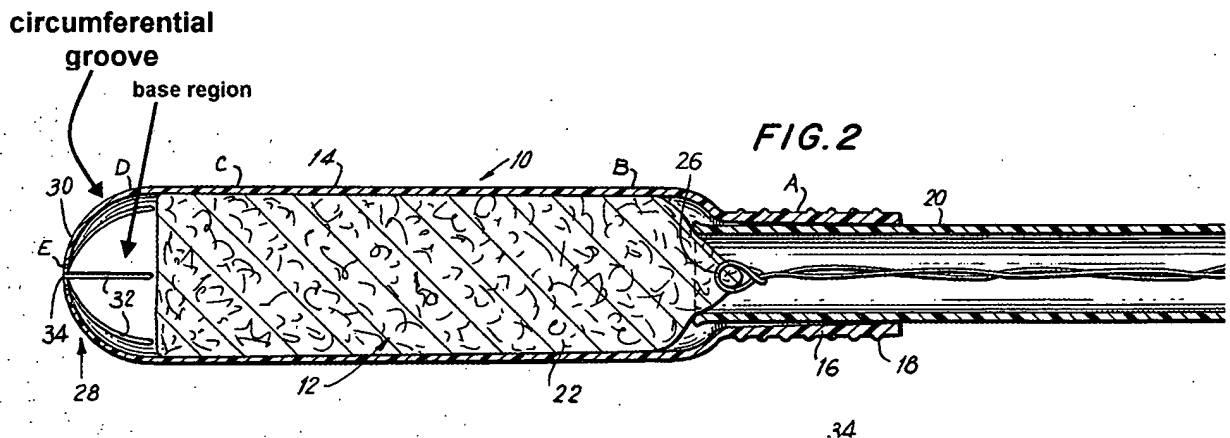
Regarding claim 12 Suga/Berger et al. disclose the tampon applicator with a taper ratio as discussed in rejected claims 2-4.

Regarding claims 13-18 Suga/Berger et al. disclose the tampon applicator with a taper ratio as discussed in rejected claim 1. Berger et al. further discloses a finger grip 16, the area, which contains a plurality of circumferentially, disposed depressed treads/ribs 18 (col. 5, ll. 9-14 and figures 1 and 2).

Regarding claims 20-22 Suga/Berger et al. disclose the tampon applicator with a two petals as discussed in rejected claim 19. Berger et al. further discloses the plurality

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of triangular segments/petals 30 that are separated by space/radial slit 32 between the segments/petals and extending below a base region, said base region having a circumferential groove on the outer wall (col. 5, ll. 35-38, figures 1, 2 and 4).



Regarding claims 24-25, 27-28, 30-31 Suga/Berger/Werner et al. disclose a maximum outside diameter as discussed in rejected claim 23 and a radial slit between grooves as discussed in rejected claim 20. The references do not expressly disclose a ratio of extension of the slit beyond the groove to the maximum outside barrel diameter or a ratio of the radial slit width to outside barrel diameter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the references to include a radial slit ratio of extension and ratio of width, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 32 Suga/Berger et al. disclose a tampon applicator with two petals as discussed in rejected claim 19. Berger et al. further discloses weakened tip/base region 34 that is rounded to reduce the possibility of segments/petals 30

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overlapping at their juncture to prevent possible scratching of vaginal tissue during use (col. 5, ll. 38-41). The method of forming the device (i.e.: 'formed by bending said petals back and forth, thereby breaking one or more bonds') is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given little patentable weight.

Regarding claim 33 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claim 1. The method of forming the device (i.e. 'formed from a material selected from a group...' is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given little patentable weight.

Regarding claim 34 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claim 1. The method of forming the device (i.e.: 'formed from cardboard') is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given little patentable weight.

Regarding claims 35-36 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claim 1. Werner et al. further discloses the outer tube 10 is low density polyethylene and the inner tube 12 is made from low density polypropylene (col. 5, ll. 5-14).

Regarding claim 37 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claims 1 and 33.

Regarding claims 38-42 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claims 1 and 2-6.

Regarding claims 43-50 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claims 1 and 7-14.

Regarding claims 51-60 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claims 1 and 15-24.

Regarding claims 61, 63-64 and 66-73 Suga/Berger et al. disclose a tampon applicator with a barrel as discussed in rejected claims 1, 12 and 25-37.

9. Claims 11, 23, 26, 29, 62, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga (US 2001/0056253) in view of Berger et al. (US 3,895,634) as applied to claim 1 and in further view of Werner et al. (US 3,765,416). Regarding claim 11 Suga/Berger et al. disclose the tampon applicator with a taper ratio and substantially uniform petal thickness as discussed in rejected claim 1. Suga/Berger et al. do not expressly disclose a barrel taper ratio. Werner et al. discloses tampon 24 encased in plastic tube/barrel 26 having a tapered insertion end with triangular segments/petals 28 (col. 4, ll. 39-42, figures 4 and 5). Werner et al. further discloses a barrel taper ratio of the largest outside barrel radius A to a radius at the base of insertion end B of 1.04 [$A/B=0.579 \text{ inch}/0.556 \text{ inch}$] (col. 3, ll. 30-34). Werner et al. does not expressly disclose petal thickness. It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the taper ratio and petal thickness of Suga/Berger et al. with the barrel taper ratio of Werner et al. since all three references disclose a tampon applicator for insertion of a tampon and having a tapered end and petals.

Regarding claims 23, 26, 29, 62 and 65 Suga/Berger/Werner et al. disclose a largest barrel outside barrel radius A of 0.579 inches as discussed in rejected claim 11.

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Furthermore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the references to include the outside diameter value claimed, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boeschr*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rawlings (US 5,385,542) is cited for showing a tampon applicator with a plurality of petals and a ratio of length of the stepped portion to length of the inner arcuate member of about 1:5.

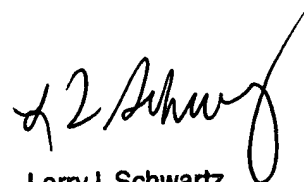
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Hill whose telephone number is 571-272-7137. The examiner can normally be reached on Monday through Friday (off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Schwartz can be reached on 571-272-4390. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura C. Hill
Examiner
Art Unit 3761
LCH



Larry I. Schwartz
Supervisory Patent Examiner
Group 3700

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10/601,771

EXAMINER

ART UNIT

PAPER

20050615

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